C. Remarks

The claims are 1-15, with claims 1, 8 and 11 being independent. The independent claims have been amended to further clarify the present invention. Support for this amendment may be found, for example, in the substitute specification at page 7, lines 8-12, and page 10, lines 19-25. No new matter has been added. Reconsideration of the claims is expressly requested.

Claims 1-3 and 11-13 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent Application No. 2005/0272169 A1 (Griffin). Claims 4, 5 and 8 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from Griffin. Claims 6, 7, 9, 10, 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from Griffin in view of U.S. Patent No. 6,432,719 B2 (Vann). The grounds of rejection are respectfully traversed.

Prior to addressing the merits of rejection, Applicants would like to briefly discuss some of the features and advantages of the presently claimed invention. That invention is related, in pertinent part, to a biochemical reaction cartridge and to a method and system utilizing this cartridge. The biochemical cartridge in accordance with the claimed invention includes a reaction portion with at least one blank reaction chamber and a solution storage portion, which is not superposed on the reaction portion when the cartridge is not in use. As a result, only the solution storage portion containing desired reaction materials may be stored at low temperatures or even in a frozen state, if desired.

Furthermore, different solution storage portions can be independently used in combination with the same reaction portion depending on what type of inspection is desired.

Griffin is directed to a biochemical analysis device. This reference discloses that an intermediate layer is provided between a solution storage chamber containing a solution and a reaction chamber, and the solution is moved from the solution storage chamber to the reaction chamber that contains dry reagents by breaking the intermediate layer by a pin, a projection, pressurization, or heating. However, Applicants respectfully submit that Griffin fails to disclose or suggest a cartridge in which a solution storage portion is not superposed on the reaction portion with a blank reaction chamber when the cartridge is not in use and a treatment process in which a solution is moved form the solution portion to the blank chamber of the reaction portion.

The Examiner alleged that Figs. 1 and 3 in Griffin show that the solution storage portion is formed as a separate unit from the reaction portion. The Examiner also pointed to the disclosure at paragraphs [0034] and [0051].

With respect to Figs. 1 and 3, these figures are labeled as exploded views (paragraphs [0063] and [0065]). There is no indication in these exploded views that the structures are not unitary when not in use. The disclosure in paragraph [0034] refers to a reaction chamber, which is co-molded into the fluidic network during the production process of the device. Paragraph [0034] does not refer to a separate and complete non-superposed reaction portion.

Paragraph [0051] in Griffin indicates that the device formed as described in paragraphs [0046]-[0048] can be manufactured in separate parts. However, neither of these separate parts is a reaction portion that has a blank chamber into which a solution can be moved when the parts are combined. Specifically, the chambers in the first part contain dry reagents (paragraph [0046]). The chambers in the second part contain fluid reagents, which are moved from the second part to the first part when the parts are superposed (paragraph [0047]). Since both the first part and the second part are sealed, the dry reagents are incorporated into their respective chambers before the first part is completed and ready to be superposed.

Thus, Applicants respectfully submit that there is clearly no disclosure or suggestion in Griffin of a reaction portion with a blank chamber as presently claimed to which the solution from the solution storage portion can be moved through a penetrable partition member. Also, there is no disclosure or suggestion of performing a biochemical reaction by moving a solution to the blank chamber of the reaction portion.

Vann cannot cure the deficiencies of Griffin. Specifically, like Griffin, Vann does not teach a cartridge in which a solution storage portion is separated from the reaction portion with a blank chamber when the cartridge is not in use.

Accordingly, whether considered separately or in combination, Griffin and Vann cannot affect the patentability of the presently claimed invention. Wherefore, withdrawal of the outstanding rejections and expedient passage of the application to issue are respectfully requested.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

/Jason M. Okun/
Jason M. Okun
Attorney for Applicants
Registration No. 48,512

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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